

Buttock Enhancing Pantyhose Undergarment
Non Provisional Patent

Filing Date: July 8th, 2003

This application claims priority from U.S. Provisional Application Serial
No. 60/394.077 filed on July 8th, 2002

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21 Specification Pages
12 Drawings
1 Cover sheet
PTO/SB/17
PTO/SB/01
PTO/SB/05

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TITLE OF THE INVENTION

BUTTOCK ENHANCING PANTYHOSE UNDERGARMENT

[0001] This application claims priority from U.S. Provisional Application Serial No. 60/394,077, entitled "Buttock Enhancing Pantyhose Undergarment," filed July 8, 2002. The entirety of that provisional application is incorporated herein by reference.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The present invention relates generally to buttock support pantyhose undergarments, and specifically to pantyhose undergarments that provide shaping to the buttocks.

Related Art

Related art includes Dupont's "Wonderbum" tights.

BRIEF DESCRIPTION OF THE FIGURES

[0003] FIGs. 1-3 illustrate a pantyhose undergarment including a control top portion with heavy support under and on side areas of the buttocks, light support on cheek areas of the buttocks, and medium support on remaining areas of the control top portion, elastic stretched and sewn down center back from waist to crotch panel, in accordance with one embodiment of the present invention.

[0004] FIGs. 4-6 illustrate a pantyhose undergarment including a control top portion with light support on cheek areas of the buttocks, and medium support on remaining areas of the control top portion, elastic stretched and sewn down center back from waist to crotch panel, in accordance with an embodiment of the present invention.

[0005] FIGs. 7-9 illustrate a pantyhose undergarment including a control top portion with heavy support under, above, in between and on side areas of the buttocks, light support on cheek areas of the buttocks, and medium support on remaining areas of the control top portion, elastic stretched and sewn down center back from waist to crotch panel, in accordance with an embodiment of the present invention.

[0006] FIGs. 10-12 illustrate a pantyhose undergarment including a control top portion with heavy support knit on the saddle bag region and under, above, and on side areas of the buttocks, light support knit on cheek areas of the buttocks, and medium support knit on remaining areas of the control top portion, elastic stretched and sewn down center back from waist to crotch panel, in accordance with an embodiment of the present invention.

SUMMARY OF THE INVENTION

[0007] Pantyhose are worn by women under dresses, pants, and other garments to provide a smooth, firm appearance. The voluptuous natural curve of the buttocks, however, is lost, providing a flat appearance. The present invention provides the wearer with a smooth tight appearance and enhances each buttock by supportive knit under the cheeks and sides, without providing a flattened appearance. In

addition, the present invention has sheer give (release) on the rump of the buttocks, as well as an elastic gathering in between the cheeks. This unique combination provides the wearer with lifted, contoured and voluptuous buttocks, in a natural looking comfortable undergarment.

[0024] The present invention is a system and method of making a pantyhose undergarment comprising at least two different yarns, or a combination thereof that impart a support and control function by using different knit patterns and/or degrees of denier and the utilization of a gathered elastic center back. The pantyhose includes lesser support at the peaks of the buttocks, greater support under the buttocks to provide lift. The greater support areas gradually grade into the lesser support areas so that no indentations are shown from differing levels of support. The pantyhose center back incorporates elastic sewn down the seam to the crotch panel while being stretched. This elastic shirring (gathering) provides a pull in between the buttocks, allowing the natural voluptuous contour in between the female buttocks to remain. This shirring not only helps contour the separate buttock cheeks but also assists in the effectiveness of the lift, so that the lift does not merely rise up the surface of the buttocks, but allows the pantyhose to grasp the bottom of the buttocks pulling them up. The elastic shirring also contributes to the effectiveness of the sheer give on the peaks of the buttocks by holding the sheer area in the proper position. The present invention also provides stomach support.

[0025] The present invention can be made in various colors, sizes, and lengths ranging from shorts, biker pant, capri (above or below the knee), and ankle to foot pantyhose (sandal foot and reinforced toe). The leg portions of the pantyhose undergarment will be available in differing ranges of sheer and opaqueness.

DETAILED DESCRIPTION OF THE INVENTION

[0008] The present invention provides four embodiments of a pantyhose undergarment 1, 2, 3, and 4 respectively, manufactured on a circular knitting machine using a circular hosiery knitting process. This enables the garment to be knitting in a continuous knitting process. Circular knitting machines and processes are well known. Those skilled in the art will understand the manner in which garments 1, 2, 3, and 4 of the present invention can be manufactured using such a machine and process. The four embodiments of the present invention will be made in a variety of colors, lengths, opaqueness, and sizes. All embodiments of the present invention may have heavy support for the stomach and saddle bag areas. More importantly, the present invention provides lift by heavy support knit under and on the sides of the buttocks and provides a release of the pressure in the ample peek areas of the buttock cheeks. The elastic gathering at the center back assists both of the above applications. Elastic, while being stretched is preferably zig zag stitched down the center back in the area between the waistband and the crotch, creating shirring (gathering). This elastic application not only defines the two separate buttock shapes but also co-acts to lift the buttocks by allowing the undergarment to grasp the buttocks. In addition, the elastic center-back assists in keeping the circles of sheer knit in place. The elastic center back, the sheer circles and the supportive lift, all assist in the effectiveness of each others goals, therein creating an effective buttock enhancing undergarment that gives the wearer a rounder, 3-dimensional, lifted and separated bottom. Although the invention is described by the illustration of these four embodiments, those experienced in the art will recognize that multiple other embodiments are possible. The present

invention is not restricted to the type of stitch or yarn since it is contemplated that various stitch types, denier ranges, and fibers can be used to obtain similar results, depending on the area of use and the degree of control.

[0009] The differing levels of support are illustrated through grid lines. Close grid lines indicate maximum support (*e.g.*, portion 106) and further apart grid lines represents sheer portions (*e.g.*, portion 110) of the pantyhose undergarment. Right cross hatching (*e.g.*, //\\\\\\) represents medium weight support (*e.g.*, portion 104), and left cross hatching (*e.g.*, \\\\\\\) represents the gradual change between medium support knit 4 and the sheer or opaque leg 10 (*e.g.*, portion 109).

Heavy Support Under and On Side Areas of the Buttocks

[0010] FIGs. 1-3 illustrate a pantyhose undergarment including a control top portion with a tighter stitch formation and/or higher denier knit under and on side areas of the buttocks, looser stitch formation and/or lighter denier knit on cheek areas of the buttocks, and medium stretch stitch formation and/or medium denier knit on remaining areas of the control top portion, in accordance with one embodiment of the present invention.

[0011] FIG. 1 illustrates a front view of a pantyhose undergarment providing stomach control support. FIG. 2 illustrates a side view of a pantyhose undergarment providing tighter stitch formation and/or higher denier under and on the sides of the buttocks, and looser stitch formation and/or lower denier on the ample portions of the cheeks of the buttocks. FIG. 3 illustrates a back view of a pantyhose undergarment providing tighter stitch formation and/or higher denier under in between, and on the sides of the buttocks, and looser stitch formation

and/or lower denier on the cheeks of the buttocks. (Elastic in the center back seam is illustrated through the zigzag stitch.)

[0012] In one embodiment, the control top portion includes varying levels of support ranging from light support (*e.g.*, sheer) to heavy support, in order to shape the hip, pelvis, saddlebag, and buttock areas. All levels of support are knitted in a continuous knitting process so that the supportive regions gradually blend into the sheerer regions of the pantyhose undergarment. This eliminates creases and indentations cause by severe changes in support levels.

[0013] In one embodiment, the control top portion 101 comprises a knitted-in welt for a waistband 105 that is, for example, 1" to 3" wide and gradually blends into the medium support control top portion 104. The medium support control top portion 104 comprises a standard medium support, having, for example, a higher denier (*i.e.*, a unit of fineness for knit fibers) range and a medium stretch stitch configuration. The front stomach portion 106 encompasses an area of denser, more supportive, and less stretchable knit configuration, as does the underside and sides of the buttock area 107, providing lift, contour and support for the buttocks. These highly supportive under and side buttock areas 107, are knitted to gradually blend into the sheer 108 less supportive, peaks of the buttocks, which consist of a circular area knitted in a sheerer denier, more stretchable knit formation 108. This lesser supportive (*e.g.*, sheer) region, on the peaks of the buttocks, enables the release of the pressure that would normally flatten the buttocks. All remaining areas of hip and thigh regions are knitted in a standard control top knit 104, of medium support knit. This medium support control top area is gradually graduated at the upper thigh regions to blend 109 with the sheer or opaque leg portions 110. The legs

would be available in a variety of denier sheer to opaque. The legs may include saddlebag coverage comprised of a tighter stitch formation and/or a higher denier.

[0014] The pantyhose undergarment includes two leg portions 110, varying in length from, for example, shorts, biker pant, capri, ankle length and footed pantyhose. The shorts, biker pant, capri and ankle lengths end, for example, in knitted-in finished welts at the leg openings. These welts are, for example, from $\frac{3}{4}$ " to 2" wide. The body of the leg portions will gradually blend into the more supportive welts, decreasing indentations caused by severe changes in support.

[0015] In one embodiment, the tubular pantyhose are cut longitudinally up the crotch region; left and right sides are stitched together with the crotch panel by a flat welt or overlock stitch. In another embodiment, the undergarments center front and back will remain seamless. In a further embodiment, starting at the waist down to the crotch panel 111, string, $\frac{1}{8}$ ", $\frac{1}{4}$ " or $\frac{3}{8}$ " wide elastic, is straight stitched, overlocked or zigzag stitched on to the back seam while being stretched, causing shirring 112. This shirring provides a pull in between the buttocks, revealing the natural voluptuous contour between the female buttock cheeks. It also enhances the effectiveness of the shaping and lift of the buttocks.

Medium Support Surrounding Cheek Area of Buttocks

[0016] FIGs. 4-6 illustrate a pantyhose undergarment including a control top portion with stretchable knit formation and/or lighter denier on cheek areas of the buttocks, and medium stretch stitch formation and/or medium denier on remaining areas of the control top portion, in accordance with an embodiment of the present invention.

[0017] FIG. 4 illustrates a front view of a pantyhose undergarment providing stomach control support. FIG. 5 illustrates a side view of a pantyhose undergarment providing looser stitch formation and/or lighter denier at the ample portions of the buttock peaks and medium stretch stitch formation and/or medium denier through out the hip and pelvis area. FIG. 6 illustrates a back view of a pantyhose undergarment providing looser stitch formation and/or lighter denier at the ample portions of the buttock peaks and medium stretch stitch formation and/or medium denier through out the control top. Elastic in the center back seam is illustrated through the zigzag stitch. This embodiment of the present invention includes a medium support control top portion that gradually blends into the sheer portions of the ample buttock peaks. This version of the present invention does not include a supportive buttock lift.

[0018] According to one embodiment, the control top portion 201 comprises a knitted-in welt for a waistband 205 that is, for example, 1" to 3" wide and gradually blends into the medium support control top portion 204. The medium support control top portion 204 comprises a standard medium support knit, having a medium stretch stitch formation and/or a medium denier range. The knitted in waistband and leg bands will have a high denier. The front stomach portion 206

encompasses an area of denser, more supportive, and a less stretchable stitch formation. The supportive control top portion area 204 is knitted to gradually blend into the sheer less supportive, peaks of the buttocks 208, which consist of a circular area knitted in a sheer, more stretchable stitch formation and/or lighter denier. This lesser supportive (*e.g.*, sheer) region 208, on the peaks of the buttocks, enables the release of the pressure that would normally flatten the buttocks. All remaining areas of hip and thigh regions are knitted in a standard control top knit 204, of medium support knit. This medium support control top area is gradually graduated at the upper thigh regions to blend 209 with the leg portions 210. The legs would be available in a range from sheer to opaque. The legs may include saddlebag coverage comprised of a tighter stitch formation and/or a higher denier.

[0019] The pantyhose undergarment includes two leg portions 210, varying in length from, for example, shorts, biker pant, capri, ankle length and footed pantyhose. The shorts, biker pant, capri and ankle lengths end, for example, in knitted-in finished welts at the leg openings. These welts are, for example, from 1" to 2" wide. The body of the leg portions will gradually blend into the more supportive leg bands, decreasing indentations caused by severe changes in support.

[0020] In one embodiment, the tubular undergarment is cut longitudinally up the crotch region; left and right sides are stitched together with the crotch panel by a flat welt or overlock stitch. In another embodiment, the pantyhose center front and back will remain seamless. In a further embodiment, starting at the waist down to the crotch panel 211, string, 1/8", 1/4" or 3/8" wide elastic, is straight stitched,

overlock stitched or zigzag stitched on to the center back while being stretched, causing shirring 212. This shirring provides a pull in between the buttocks, creating a natural voluptuous contour to the female buttocks. It also enhances the effectiveness of the shaping and lift of the buttocks.

Heavy Support Under, Above, In Between and On Side Areas of the Buttocks

[0021] FIGs. 7-9 illustrate a pantyhose undergarment including a control top portion with tighter stitch formation and/or higher denier under, in between, on side area of the buttocks and above (up to the waistband), stretchable stitch formation and/or light denier on cheek areas of the buttocks, and medium stretch stitch formation and medium denier on remaining areas of the control top portion, in accordance with an embodiment of the present invention.

[0022] FIG. 7 illustrates a front view of a pantyhose undergarment providing stomach control support and side support with tighter stitch formation and/or higher denier contouring the sides of the buttocks. FIG. 8 illustrates a side view of a pantyhose undergarment wherein the under buttock and side tighter stitch formation and/or higher denier support is carried up to the waste band, and a more stretchable stitch formation and lower denier knit is knitted on the ample portions of the buttocks. FIG.9 illustrates a back view of a pantyhose undergarment wherein the under buttock and side's tighter stitch formation and/or higher denier support is carried up to the waste band, and in between the buttocks, and a stretchable stitch formation and/or lower denier knit is knitted on the ample portions of the buttocks, and a medium stretch stitch formation and/or medium support denier is knitted on remaining control top areas. Elastic 312 in the center

back is illustrated through the zigzag stitch. This embodiment of the present invention includes buttock support not only under and up the sides, but also up to the waistline and in between the buttock cheek areas for ultimate lift.

[0023] According to one embodiment, the control top portion 301 comprises a knitted-in seam is illustrated through the zigzag stitch. This embodiment of the present invention includes buttock support not only under the buttock and up the side, but welt for a waistband 305 that is, for example, 1" to 3" wide and gradually blends into the medium support control top portion 304. The medium support control top portion 304 comprises a standard medium support knit, having a medium stretch stitch formation and/or a medium denier (*i.e.*, a unit of fineness for knit fibers). The knitted in waistband and leg bands will have a higher denier and a supportive stitch formation. The front stomach portion 306 encompasses an area of denser, more supportive, and less stretchable knit, as does the underside and sides of the buttock area 307, going all the way to the waistband, providing lift, contour and support for the buttocks. These highly supportive under and side buttock areas 307, are knitted to gradually blend into the sheer 308 less supportive, peaks of the buttocks, which consist of a circular area knitted in a more stretchable knit formation and/or sheerer denier 308. This lesser supportive (*e.g.*, sheer) region, on the peaks of the buttocks, enables the release of the pressure that would normally flatten the buttocks. All remaining areas of hip and thigh regions are knitted in a standard control top knit 304, of medium support knit comprising a medium support stitch formation and/or a medium support denier. This medium support control top area is gradually graduated to blend 309 with the leg portions 310. The legs would be available in a range from sheer to opaque. The legs may

include saddlebag coverage comprised of a tighter stitch formation and/or a higher denier.

[0026] The pantyhose undergarment includes two leg portions 310, varying in length from, for example, shorts, biker pant, capri, ankle length and footed pantyhose. The shorts, biker pant, capri and ankle lengths end, for example, in knitted-in finished welts at the leg openings. These welts are, for example, from 1" to 2" wide. The body of the leg portions will gradually blend into the more supportive welts, decreasing indentations caused by severe changes in support.

[0027] In one embodiment, the tubular undergarment is cut longitudinally up the crotch region; left and right sides are stitched together with the crotch panel by a flat welt stitch or overlock stitch. In another embodiment, the undergarments left and right sides will remain seamless. In a further embodiment, starting at the waist down to the crotch panel 311, string, 1/8", 1/4", or 3/8" wide elastic, is straight stitched, overlock stitched or zigzag stitched on to the center back while being stretched, causing shirring 312. This shirring provides a pull in between the buttocks, creating a natural voluptuous contour to the female buttocks. It also enhances the effectiveness of the shaping and lift of the buttocks.

Heavy Support Under, Above, and on Side Areas of the Buttocks

[0028] FIGs. 10-12 illustrate a pantyhose undergarment including a control top portion with a tighter stitch formation and/or a higher denier not only under, above, and on side areas of the buttocks, but also carried down to the thighs for saddlebag support. A looser stitch formation and/or lower denier on cheek areas of the buttocks, and medium support stitch formation and/or medium denier on remaining

areas of the control top portion, in accordance with an embodiment of the present invention.

[0029] FIG. 10 illustrates a front view of a pantyhose undergarment providing stomach control support and side support with tighter stitch formation and/or a higher denier contouring the sides of the buttocks. FIG. 11 illustrates a side view of a pantyhose undergarment wherein the under buttock and side tighter stitch formation and higher denier is carried up to the waste band, and carried down to the thighs for saddlebag support. A stretchable stitch formation and/or lower denier, sheerer knit is knitted on the ample portions of the buttocks. FIG. 12 illustrates a back view of a pantyhose undergarment wherein the under buttock and side's tighter stitch formation and/or higher denier is carried up to the waste band and down to the thighs. A stretchable stitch formation and/or lower denier knit, is knitted on the ample portions of the buttocks, and a medium support knit formation and/or medium denier support is knitted on remaining control top areas. Elastic in the center back seam is illustrated through the zigzag stitch. This embodiment of the present invention includes buttock support, not only under the buttock and up the side, but also up to the waistline for ultimate lift and down to the thighs for saddlebag coverage.

[0030] In one embodiment, the control top portion 401 comprises a knitted-in welt for a waistband 405 that is, for example, 1" to 3" wide and gradually blends into the medium support control top portion 404. The medium support control top portion 404 comprises a standard medium support knit, having; for example, a medium stretch knit formation and/or medium denier (*i.e.*, a unit of fineness for knit fibers). The knitted in waistband and leg bands will have a higher denier and

tighter stitch formation. The front stomach portion 406 encompasses an area of denser, more supportive, and less stretchable stitch formation, as does the saddlebag area 414 and also the under and sides areas 407 surrounding the buttock peaks, providing lift, contour and support for the buttocks. These highly supportive under and side buttock areas 407, are knitted to gradually blend into the sheer less supportive, peaks of the buttocks, which consist of a circular area knitted 408 in a sheer, more stretchable stitch formation and/or lower denier. This lesser supportive (*e.g.*, sheer) region, on the peaks of the buttocks, enables the release of the pressure that would normally flatten the buttocks. All remaining areas of hip and thigh regions are knitted in a standard control top knit 404, of medium support stitch and/or a medium support denier. This medium support control top area is gradually graduated at the upper thigh regions to blend 409 with the leg portions 410 and the saddlebag areas 414. The legs would be available in a range from sheer to opaque. The legs saddlebag support 414 comprised of a heavy support knit comprising a tighter stitch formation and/or a higher denier.

[0031] The pantyhose undergarment includes two leg portions 410, varying in length from, for example, shorts, biker pant, capri, ankle length and footed pantyhose. The shorts, biker pant, capri and ankle lengths end, for example, in knitted-in finished welts at the leg openings. These welts are, for example, from 1" to 2" wide. The body of the leg portions will gradually blend into the more supportive welts, decreasing indentations caused by severe changes in support.

[0032] In one embodiment, the tubular undergarment is cut up the crotch region, left and right sides are stitched together with the crotch panel preferably using a flat welt stitch or an overlock stitch. In another embodiment, the undergarments center

front and back will remain seamless. In a further embodiment, starting at the waist down to the crotch panel 411, string, 1/8", 1/4", or 3/8" wide elastic, is straight stitched, overlock stitched or zigzag stitched on to the back seam while being stretched, causing shirring 412. This shirring provides a pull in between the buttocks, revealing the natural voluptuous contour in between the female buttock cheeks. It also enhances the effectiveness of the shaping and lift of the buttocks.

Additional Embodiments

[0033] The present invention may be manufactured in conventional fibers wherein at least two yarns are selected from the group consisting of Spandex, Lycra, nylon, poly, silk, cotton, rayon, and elastic.

[0034] Example embodiments of the present invention have now been described in accordance with the above advantages. It will be appreciated that these examples are merely illustrative of the invention. Those skilled in the art will understand that many modifications may be made to the present invention and that all such modifications are within the spirit and scope of the present invention.

[0035] Those skilled in the art will also understand that the present invention is also not limited with respect to the length, construction, stitch formation, denier or yarns used for the differing portions of the pantyhose undergarment. The selections, length, yarns, denier, stitch formation and construction specified above are simply embodiments.